

I (WE) CLAIM:

1. A method for remote assistance in local medical diagnostic ultrasound imaging, the method comprising:
 - (a) acquiring ultrasound image data at a first local location;
 - (b) transmitting the ultrasound image data from the first local location to a remote location, the remote location in a different facility than the first local location; and
 - (c) receiving from the remote location processed data responsive to the ultrasound image data at one of: the first local location and a second local location different than the first local location and the remote location.
2. The method of Claim 1 wherein (c) comprises receiving diagnosis recommendations as the processed data.
3. The method of Claim 1 wherein (c) comprises receiving a filtered version of the ultrasound image data as the processed data.
4. The method of Claim 1 wherein (c) comprises receiving quantification data as the processed data.
5. The method of Claim 1 further comprising:
 - (d) automatically processing the ultrasound image data with a processor at the remote location, the result of (d) being the processed data.
6. The method of Claim 1 further comprising:
 - (d) entering data from a user input at the remote location, the data being the processed data.

7. The method of Claim 1 wherein (a) comprises acquiring a sequence of Doppler ultrasound images and wherein (b) comprises transmitting the sequence of Doppler ultrasound images.
8. The method of Claim 1 wherein (a) comprises acquiring an image selected from the group of: a second harmonic ultrasound image, a continuous wave image, a pulsed wave image, a Doppler image, a Doppler and B-mode image, a B-mode image, and an M-mode image, wherein (b) comprises transmitting the image.
9. The method of Claim 1 wherein (a) comprises acquiring the ultrasound image data during an imaging session, wherein (b) comprises transmitting the ultrasound image data as (a) is performed, and wherein (c) comprises receiving the processed data during the imaging session.
10. The method of Claim 1 wherein (c) comprises receiving from the remote location the processed data responsive to the ultrasound image data at the first local location.
11. The method of Claim 1 wherein (a) comprises acquiring ultrasound image data representing a three-dimensional volume.
12. The method of Claim 1 further comprising:
 - (d) encrypting one of: the acquired ultrasound data prior to (b) and the processed data prior to (c).
13. A method for assistance in medical diagnostic ultrasound imaging, the method comprising:
 - (a) receiving first ultrasound image data from a first remote location;
 - (b) receiving second ultrasound image data from a second remote location, the first remote location at a different facility than the first remote location;

(c) processing the first and second ultrasound image data at a third location different than the first and second remote locations; and

(d) transmitting first and second processed data responsive to (c) from the third location.

14. The method of Claim 13 further comprising:

(e) receiving other ultrasound image data from a plurality of other remote locations;

wherein (c) comprises processing the first, second and other ultrasound image data.

15. The method of Claim 13 wherein (a) and (b) comprise receiving at a server over a network and wherein (c) comprises automatically processing the first and second ultrasound image data with the server.

16. The method of Claim 15 wherein (c) comprises automatically processing without user input after (a) and (b) and before (d).

17. The method of Claim 13 wherein (c) comprises transmitting the first and second processed data to the first and second remote locations, respectively.

18. The method of Claim 13 wherein (c) comprises processing data representing a three-dimensional volume.

19. The method of Claim 13 further comprising:

(e) encrypting the processed data prior to (d).

20. The method of Claim 13 wherein (a) and (b) comprise receiving at a server over a network and wherein (c) comprises:

(c1) displaying first and second images responsive to the first and second ultrasound data, respectively; and

(c2) entering first and second diagnosis information in response to (c1) with a user input;

wherein (d) comprises transmitting the first and second diagnosis information.

21. The method of Claim 13 wherein (c) comprises generating an index of similarity.

22. A system for assistance in medical diagnostic ultrasound imaging, the system comprising:

a first medical diagnostic ultrasound imaging system at a first location;
a second medical diagnostic ultrasound imaging system as a second location, the second location at a different facility than the first location;
a server operable to receive first and second ultrasound imaging information from the first and second medical diagnostic ultrasound imaging systems, respectively, the server operable to process the first and second ultrasound imaging information and operable to transmit processed results to one of: the first medical diagnostic ultrasound imaging system, the second medical diagnostic ultrasound imaging system, a third medical diagnostic ultrasound imaging system different than the first and second medical diagnostic ultrasound imaging systems, and combinations thereof.

23. The system of Claim 22 further comprising:

a display connected with the server, the display operable to show first and second images responsive to the first and second ultrasound imaging information, respectively; and

a user input operable to provide diagnosis information to the server as the processed results.

24. The system of Claim 22 wherein the server is operable to automatically process the first and second ultrasound imaging information without user input at the server.

25. The system of Claim 22 further comprising:
a memory connected with the server, the memory operable to store a plurality of ultrasound images;
wherein the processor is operable to process the first ultrasound imaging information based on a characteristic of the plurality of ultrasound images.
26. The system of Claim 22 further comprising:
at least fifty additional medical diagnostic ultrasound imaging systems at individually remote locations; and
a communications network electrically connecting the additional medical diagnostic ultrasound imaging systems to the server.
27. The system of Claim 22 wherein the processor is operable to encrypt the processed results.